



# **Ebola Hemorrhagic Fever**

## **Known Cases and Outbreaks of Ebola Hemorrhagic Fever, in Chronological Order**

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| <b>Year(s)</b> | <b>Country</b>                                    | <b>Ebola subtype</b> | <b>Reported no. of human cases</b> | <b>Reported no. (%) of deaths among cases</b> | <b>Situation</b>   |
|----------------|---|----------------------|------------------------------------|---|--|
| 1976           | Zaire<br>[Democratic Republic of the Congo (DRC)] | Ebola-Zaire          | 318                                | 280 (88)                                      | Occurred in Yambuku and surrounding area. Disease was spread by close personal contact and by use of contaminated needles and syringes in hospitals/clinics. This outbreak was the first recognition of the disease [1]. |
| 1976           | Sudan   | Ebola-Sudan          | 284                                | 151 (53)                                      | Occurred in Nzara, Maridi and the surrounding area. Disease was spread mainly through close personal contact within hospitals. Many medical care personnel were infected [2].  |
| 1976           | England   | Ebola-Sudan          | 1                                  | 0 (0)   | Laboratory infection by accidental stick of contaminated needle [3].   |
| 1977           | Zaire   | Ebola-Zaire          | 1                                  | 1 (100)                                       | Noted retrospectively in the village of Tandala [4].   |
| 1979           | Sudan   | Ebola-Sudan          | 34                                 | 22 (65)                                       | Occurred in Nzara. Recurrent outbreak at the same site as the 1976 Sudan epidemic [5].   |
| 1989           | USA   | Ebola-Reston         | 0                                  | 0 (0)   | Ebola-Reston virus was introduced into quarantine facilities in Virginia, Texas, and Pennsylvania by monkeys imported from the Philippines [6].  |

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|-----------|-------------|-------------------|-----------------------------|--|---|
| 1990      | USA         | Ebola-Reston      | 0                           | 0 (0)                                  | Ebola-Reston virus was introduced once again into quarantine facilities in Virginia, and Texas by monkeys imported from the Philippines. Four humans developed antibodies but did not get sick [7].                               |
| 1989-1990 | Philippines | Ebola-Reston      | 0                           | 0 (0)                                  | High mortality among cynomolgus macaques in a primate facility responsible for exporting animals in the USA [8]. Three workers in the animal facility with high Ebola antibody levels [9].  |
| 1992      | Italy       | Ebola-Reston      | 0                           | 0 (0)                                  | Ebola-Reston virus was introduced into quarantine facilities in Sienna by monkeys imported from the same export facility in the Philippines that was involved in the episodes in the United States. No humans were infected [10]. |
| 1994      | Gabon       | Ebola-Zaire       | 52                          | 31 (60)                                | Occurred in Mékouka and other gold-mining camps deep in the rain forest. Initially thought to be yellow fever; identified as Ebola hemorrhagic fever in 1995 [11].  |
| 1994      | Ivory Coast | Ebola-Ivory Coast | 1                           | 0 (0)                                  | Scientist became ill after conducting an autopsy on a wild chimpanzee in the Tai Forest. The patient was treated in Switzerland [12].   |

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|--------------------------|---|---------------|-----------------------------|--|---|
| 1995                     | Democratic Republic of the Congo (formerly Zaire) | Ebola-Zaire   | 315                         | 250 (81)                               | Occurred in Kikwit and surrounding area. Traced to index case-patient who worked in forest adjoining the city. Epidemic spread through families and hospitals [13].   |
| 1996 (Jan - April)       | Gabon   | Ebola-Zaire   | 37                          | 21 (57)                                | Occurred in Mayibout area. A chimpanzee found dead in the forest was eaten by people hunting for food. Nineteen people who were involved in the butchery of the animal became ill; other cases occurred in family members (11).   |
| 1996 - 1997 (July - Jan) | Gabon   | Ebola-Zaire   | 60                          | 45 (74)                                | Occurred in Booué area with transport of patients to Libreville. Index case-patient was a hunter who lived in a forest camp. Disease was spread by close contact with infected persons. A dead chimpanzee found in the forest at the time was determined to be infected [11]. |
| 1996                     | South Africa                                      | Ebola-Zaire   | 2                           | 1 (50)                                 | A medical professional traveled from Gabon to Johannesburg, South Africa, after having treated Ebola virus-infected patients and thus having been exposed to the virus. He was hospitalized, and a nurse who took care of him became infected and died [14].                  |

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| 1996                               | USA               | Ebola-Reston  | 0                           | 0 (0)                                  | Ebola-Reston virus was introduced into a quarantine facility in Texas by monkeys imported from the Philippines. No human infections were identified [15].   |
| 1996                               | Philippines       | Ebola-Reston  | 0                           | 0 (0)                                  | Ebola-Reston virus was identified in a monkey export facility in the Philippines. No human infections were identified; one animal handler has Ebola antibody [16].  |
| 2000 - 2001                        | Uganda            | Ebola-Sudan   | 425                         | 224 (53)                               | Occurred in Gulu, Masindi, and Mbarara districts of Uganda. The three most important risks associated with Ebola virus infection were attending funerals of Ebola hemorrhagic fever case-patients, having contact with case-patients in one's family, and providing medical care to Ebola case-patients without using adequate personal protective measures [17]. |
| 2001 - 2002<br>(Oct 01 - March 02) | Gabon             | Ebola-Zaire   | 65                          | 53 (82)                                | Outbreak occurred over the border of Gabon and the Republic of the Congo [18].  |
| 2001 - 2002<br>(Oct 01 - March 02) | Republic of Congo | Ebola-Zaire   | 57                          | 43 (75)                                | Outbreak occurred over the border of Gabon and the Republic of the Congo. This was the first time that Ebola hemorrhagic fever was reported in the Republic of Congo [18].  |

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|------------------------------------|-------------------|----------------------|------------------------------------|---|---|
| 2002 - 2003<br>(Dec 02 - April 03) | Republic of Congo | Ebola-Zaire          | 143                                | 129 (89)                                      | Outbreak occurred in the districts of Mbomo and Kéllé in Cuvette Ouest Département [19].  |
| 2001 - 2002<br>(Oct 01 - March 02) | Republic of Congo | Ebola-Zaire          | 57                                 | 43 (75)                                       | Outbreak occurred over the border of Gabon and the Republic of the Congo. This was the first time that Ebola hemorrhagic fever was reported in the Republic of Congo [18].                                      |
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| 2003 (Nov - Dec)                   | Republic of Congo | Ebola-Zaire          | 35                                 | 29 (83)                                       | Outbreak occurred in Mbomo and Mbandza villages located in Mbomo district, Cuvette Ouest Département [20].  |
| 2004                               | Sudan             | Ebola-Sudan          | 17                                 | 7 (41)  | Outbreak occurred in Yambio county of southern Sudan. This outbreak was concurrent with an outbreak of measles in the same area, and several suspected EHF cases were later reclassified as measles cases [21]. |

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